



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,930	06/29/2005	Waho Oh	1152-0320PUS1	8713

2292 7590 06/08/2007  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

NGUYEN, MY XUAN

ART UNIT	PAPER NUMBER
----------	--------------

2617

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/08/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,930	<b>Applicant(s)</b> OH, WAHO	
	<b>Examiner</b> My X. Nguyen	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,243,581 B1 (Jawanda), and further in view of U.S. Patent 6,580,704 B1 (Wellig et al., hereinafter Wellig).

Regarding claim 1, Jawanda discloses the claimed:

a wireless LAN access point connected to an external network (Fig. 1 Element 22);

a first mobile communication terminal having a first wireless LAN interface and connectable to the wireless LAN access point by way of the first wireless LAN interface (Fig. 1 Elements 14 & 20); and

a second mobile communication terminal connectable to the external network by way of a base station connectable to a mobile communication interface and having a second wireless LAN interface, connectable to the wireless LAN access point (Fig. 1 Elements 16, 30 & 38), wherein

the first mobile communication terminal includes:

a connection request transmitting means for transmitting a connection request signal to the second mobile communication terminal by way of the wireless LAN access point (Fig. 4, Col. 5 Lines 27-32); and

a wireless LAN connection switching means for establishing connection to the second wireless LAN interface of the second mobile communication terminal after transmitting the connection request signal (Fig. 4, Col. 5 Lines 20-42), and the second mobile communication terminal includes:

a connection request receiving means for receiving the connection request signal (Fig. 4, Col. 5 Lines 27-32); and

a base station connecting means which establishes connection to the base station by way of the second communication terminal upon and after reception of the connection request signal, so as to enable its connection to the base station with the first mobile communication terminal by way of the second communication terminal (Figs. 1 & 4, Col. 5 Lines 20-61).

What Jawanda does not explicitly disclose is the claimed second wireless LAN interface connectable to the wireless LAN access point. Furthermore Jawanda does not explicitly disclose a connection request transmitting means for transmitting a connection request signal to the second mobile communication terminal by way of the wireless LAN access point.

However, Wellig does disclose the claimed second wireless LAN interface connectable to the wireless LAN access point and the claimed a connection request transmitting means for transmitting a connection request signal to the second mobile communication terminal by way of the wireless LAN access point (Figs. 1 & 9, Col. 5 Lines 14-25, Col. 6 Lines 65-67 & Col. 7 Lines 1-6).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to implement the features of Wellig with the system of Jawanda because the features of a second wireless LAN interface connectable to the wireless LAN access point and a connection request transmitting means for transmitting a connection request signal to the second mobile communication terminal by way of the wireless LAN access point is old and well known in the prior art. The motivation to make the combination is to create a reliable system which avoids unnecessary waste of scarce channel resource (Wellig, Col. 4 Lines 40-44).

Claim 2 is met by the combination of Jawanda and Wellig, wherein the combination discloses the claimed:

the first mobile communication terminal further includes a communication status detecting means that detects the strength of the received signal from the wireless LAN access point and/or the status of communication with the wireless LAN access point (Jawanda, Col. 5 Lines 48-52);

the second wireless LAN interface (Wellig, Col. 5 Lines 14-25) of the second mobile communication terminal has a wireless LAN access point or wireless LAN client function (Jawanda, Col. 2 Lines 1-6), and

when the communication status detecting means determines that the first mobile communication terminal can be connected by means of the wireless LAN access point or wireless LAN client function of the second mobile communication terminal, establishes connection to the wireless LAN access point or wireless LAN client function of the second mobile communication terminal (Fig. 4, Col. 5 Lines 20-61), in infrastructure mode or in ad hoc mode (Jawanda, Figs. 1 & 3 or Wellig, Figs. 1 & 9).

Claim 3 is met by the combination of Jawanda and Wellig, wherein the combination discloses the claimed:

a first communication interface using a communicable communication system by way of an access point (Fig. 1, Col. 2 Lines 1-6), wherein

a connection request signal is transmitted to another mobile communication terminal (Jawanda, Fig. 4, Col. 5 Lines 20-61) by way of the first communication interface (Wellig, Col. 5 Lines 14-25) based on a predetermined condition, thereafter data transmission to communication terminals not under control of the access point is performed (Jawanda, Fig. 4, Col. 5 Lines 20-61) by way of said first communication interface (Wellig, Col. 5 Lines 14-25) and said other mobile communication terminal, not by way of said access point (Jawanda, Fig. 4, Col. 5 Lines 20-61).

Art Unit: 2617

Claim 4 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

the predetermined condition includes a condition of one of received signal strength from the access point is lower than a threshold value, and data transfer rates indicating communication status to the access point is lower than the threshold value (Jawanda, Col. 5 Lines 48-52).

Claim 5 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

after transmitting the connection request signal, the first communication interface communicates with said other mobile communication terminal by way of a network, different from the network controlled by said access point (Figs. 1 & 4, Col. 5 Lines 20-61).

Claim 6 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

the communication system is a wireless LAN (Fig. 1) and  
said network is configured in one of in ad hoc mode and in infrastructure mode (Figs. 1 & 3), and said other mobile communication terminal is the access point (Fig. 4, Col. 5 Lines 20-61).

Claim 7 is met by the combination of Jawanda and Wellig, wherein the combination discloses the claimed:

a communication interface using a first communication system communicable by way of an access point (Jawanda, Fig. 1, Col. 2 Lines 1-6); and

a mobile communication interface communicable by way of a base station utilizing a second communication system, different from the first communication system (Jawanda, Fig. 1 Elements 16, 30 & 38), wherein

when a connection request signal is received by way of one of the communication interface (Wellig, Figs. 1 & 9, Col. 5 Lines 14-25, Col. 6 Lines 65-67 & Col. 7 Lines 1-6). and the mobile communication interface from another mobile communication terminal, thereafter data to communication terminals not under control of the access point and transmitted from said other mobile communication terminal is transmitted by way of the mobile communication interface and the base station (Jawanda, Figs. 1 & 4, Col. 5 Lines 20-61).

Claim 8 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

when the connection request signal is received from said other mobile communication terminal, connection to the base station is established by way of the mobile communication interface (Figs. 1 & 4, Col. 5 Lines 20-61).



Claim 9 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

when the connection request signal is received, data from the mobile communication terminal, which has transmitted the connection request signal, is received after reconstructing a network to which the communication interface connects by itself (Figs. 1 & 4, Col. 5 Lines 20-61).

Claim 10 is met by the combination of Jawanda and Wellig, wherein Jawanda discloses the claimed:

the communication system used by the communication interface is a wireless LAN (Fig. 1), and

reconstructing a network is one of switching from infrastructure mode to ad hoc mode, and switching from infrastructure mode constructed by another access point to infrastructure mode which becomes the access point by itself (Figs. 1 & 4, Col. 5 Lines 20-61).

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Publication 2002/0122410 A1 (Kulikov et al.), Method of wireless data exchange amongst devices of limited range.

U.S. Patent Publication 2002/0147008 A1 (Kallio), GSM networks and solutions for providing seamless mobility between GSM networks and different radio networks.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Art Unit: 2617

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My X. Nguyen whose telephone number is (571) 272-2835. The examiner can normally be reached on Monday through Friday at 8:00AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.X.N.  
05/24/2007

  
DUC M. NGUYEN  
SUPERVISORY PRIMARY EXAMINER  
TECHNOLOGY CENTER 2600